

# Chapter 6

## Write a C Client Application

The following example illustrates how a client application written in C can use the secure shell (ssh) or telnet protocol to establish a JUNOScript connection and session. In the line that begins with the string `execlp`, the client application invokes the `ssh` command. (Substitute the `telnet` command if appropriate.) The *router* argument to the `execlp` routine specifies the hostname or IP address of the JUNOScript server. The `junoscript` argument is the command that converts the connection to a JUNOScript session.

For more information about JUNOScript sessions, see “Start, Control, and End a JUNOScript Session” on page 14.

```
int ipipes[ 2 ], opipes[ 2 ];
pid_t pid;
int rc;
char buf[ BUFSIZ ];

if (pipe(ipipes) <0 || pipe(opipes) <0)
    err(1, "pipe failed");

pid = fork();
if (pid <0)
    err(1, "fork failed");

if (pid == 0) {
    dup2(ipipes[ 0 ], STDIN_FILENO);
    dup2(ipipes[ 1 ], STDOUT_FILENO);
    dup2(ipipes[ 1 ], STDERR_FILENO);
    close(ipipes[ 0 ]); /* close read end of pipe */
    close(ipipes[ 1 ]); /* close write end of pipe */
    close(opipes[ 0 ]); /* close read end of pipe */
    close(opipes[ 1 ]); /* close write end of pipe */

    execlp("ssh", "ssh", "-x", "router", "junoscript", NULL);
    err(1, "unable to execute: ssh %s junoscript," router);
}

close(ipipes[ 1 ]); /* close write end of pipe */
close(opipes[ 0 ]); /* close read end of pipe */

if (write(opipes[ 1 ], initial_handshake, strlen(initial_handshake)) <0 )
    err(1, "writing initial handshake failed");

rc=read(ipipes[ 0 ], buf, sizeof(buf));
if (rc <0)
    err(1, "read initial handshake failed");
```

